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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,795	02/23/2000	Richard Schunk	37069/JEC/X2	3884

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ALCATEL INTERNETWORKING SYSTEM, INC.
ALCATEL-INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 03/17/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/511,795

Applicant(s)

SCHUNK ET AL.

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 24 is/are rejected.
- 7) ☒ Claim(s) 21-23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified-copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Claim Rejections - 35 USC § 103

1. Claims 1, 2, 4-9, 11-16, 18-20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yin (US 5,982,748) in view of Cheung (US 6,515,964).
2. Regarding claims 1, 8, 14 and 15, Yin substantially teaches an apparatus and a method for a multi service network switch (Fig. 1 and col. 2 lines 45-46, col. 4 lines 31-34) comprising:
Receiving an incoming connection request (connection request on Fig. 1 and col. 4 lines 37-40);
Assigning (CAC 10 on Fig. 1 and col. 4 lines 34-43) an access level (service class on Tables 1 and 2, col. 1 lines 39-55) to the incoming connection request;
Identifying (CAC) the resource requested by the incoming connection request (steps 36, 42, 48 on Fig. 2 and col. 5 lines 16-18, 26-27, 33-34);
Determining an amount of current usage for the identified resource (rate monitor 16 on Fig. 1 and col. 4 lines 56-67, steps 38, 44, 50 on Fig. 2 col. 5 lines 37-44); and
Allocating (CAC) the identified resource (variable A(i) on Fig. 4 and col. 6 lines 43-65) to the incoming connection request (step 82 on Fig. 4 and col. 8 lines 39-41) if the amount of current usage is less than the access threshold associated with the assigned access level (step 76 on Fig. 4 and col. 8 lines 32-39, col. 6 lines 8-35).

Yin does not teach maintaining in a data store of the network switch an access level for a characteristic associated with a connection request, the access level being associated with an access threshold, determining the characteristic of the incoming connection request, retrieving

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the access level for the determined characteristic from a data store and assigning the retrieved access to the incoming connection request.

Cheung teaches maintaining in a data store (memory 200 on Fig. 3 and 6:14-48) of the network switch (gateway 100 on Fig. 2 and 5:28-65) an access level (call quality requirement 4:59-63) for a characteristic associated with a connection request (6:54-64), the access level being associated with an access threshold (maximum delay bound 6:56-64), determining the characteristic of the incoming connection request (call quality requirements determined step 520 on Fig. 5 and 8:58-60), retrieving (4:64-67 and 5:1-7) the access level for the determined characteristic from a data store and assigning the retrieved access to the incoming connection request (2:41-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add method of Cheung to the system of Yin to increase the amount of quality characteristics in the system.

Yin and Cheung do not teach an access level of two or more access tiers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add two access tiers to the method of Yin and Cheung as a design choice, because three tiers or four tiers will work in the system as well.

In addition regarding claim 14, Yin teaches interface lines for receiving an incoming connection request (Connection request 12 on Fig. 1 and col. 4 lines 34-35),

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A memory storing a plurality of access levels (database 15 on Fig. 1 and col. 4 lines 40-48), and
A processor coupled to the memory to execute program instructions (Connection Admission
Control 10 on Fig. 1 and col. 4 lines 34-48).

Regarding claims 4, 11 and 18, Yin teaches a method and apparatus wherein the
characteristic of the incoming call is a type of inlink carrying the incoming connection request
(col. 1 lines 26-38).

Regarding claims 6, 12 and 20, Yin teaches a method and apparatus wherein the
characteristic of the incoming call is a type of user submitting the connection request (constant
data, voice. Video col. 1 lines 39-55).

Regarding claims 7 and 13, Yin teaches a method and apparatus comprising
communicating a request for the identified resource, the communicated request including the
identified quality of access level (CBR, ABR, UBR on Fig. 1 and col. 1 lines 39-55);
Communicating a response indicating that the identified resource is available (col. 2 lines 26-29)
and communicating a request to allocate the identified resource (col. 2 lines 29-41).

3. Regarding claims 2, 9 and 16, Yin and Cheung substantially teach all the limitations of
parent claims 1, 8, 14 including terminating a connection and reallocating the resource
previously allocated to the terminated connection (Yin col. 4 lines 43-48).

Yin and Cheung do not teach terminating an existing connection based on its access level.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to add termination a low priority connection (UBR col. 1 lines 52-55) to the system of Yin and Cheung to improve the system utilization of network resources.

4. Regarding claims 5 and 19, Yin and Cheung substantially teach all the limitations of parent claims 1, 14 including storing information regarding existing connections (Yin col. 4 lines 40-45) and updating it.

Yin and Cheung do not teach associating a connection request with a phone number.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use of phone numbers to identify existing and new connections in the system of Yin and Cheung to improve the system utilization of network resources.

5. Claims 3, 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yin and Cheung in further view of Hardwick (US 5,550,816).

Yin and Cheung substantially teach all the limitations of parent claims 1, 2, 8, 9 and 14 including allocating bandwidth to different service classes and monitoring it.

Yin and Cheung do not teach plurality of virtual routers as different service classes.

Hardwick teaches plurality of virtual routers as different service classes (closed user groups col. 5 lines 47-65 and col. 15 lines 17-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add plurality of virtual routers of Hardwick to the system of Yin and Cheung to improve the system utilization of network resources.

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6. Regarding claim 24, Yin and Cheung teach

a method for a multi service network switch comprising:

Receiving an incoming connection request;

Assigning an access level to the incoming connection request;

Identifying the resource requested by the incoming connection request;

Determining an amount of current usage for the identified resource; and

Allocating the identified resource to the incoming connection request if the amount of current usage is less than the access threshold associated with the assigned access level,

maintaining in a data store of the network switch an access level for a characteristic associated with a connection request, the access level being associated with an access threshold,

determining the characteristic of the incoming connection request, retrieving the access level for the determined characteristic from a data store and assigning the retrieved access to the incoming connection request (see claim 1 rejection for details).

Yin and Cheung do not teach terminating an existing connection based on its access level if the amount of current usage is greater than the access threshold associated with the assigned level.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add termination a low priority connection (Yin, UBR col. 1 lines 52-55), when the amount of current usage (Yin, delay requirements in Table 1) is greater than the access threshold (maximum delay bound 6:54-67) associated with the assigned level to the system of Yin and Cheung to improve the system utilization of network resources.

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Allowable Subject Matter

Claims 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed 02/05/04 have been fully considered but they are not persuasive.

On page 10 of the response, Applicant argues that teachings of Yin and Cheung were improperly combined.

Examiner respectfully disagrees.

Yin and Cheung teach controlling the admission of calls/requests to a network.

Yin teaches a need for QoS requirements and classes of service for requested and existing connections (Yin 3:26-41). Cheung teaches a need for call admission characterization based on QoS (admission control gateway 100 and call quality data structure 220).

Cheung teaching of a second call action of rerouting/discounting calls with unacceptable QoS is an additional embodiment, which does not interfere with Cheung teachings of call admission control based on QoS.

Both systems teach call admission control based on QoS requirements and it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine them.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so

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long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

On page 11 of the response, Applicant argues that Yin and Cheung do not teach maintaining a data store of the network switch for a characteristic associated with a connection request, the access level associated with an access threshold, retrieving the access level for the determined characteristic from a data store and assigning the retrieved level to the incoming connection request.

Examiner respectfully disagrees.

Cheung and Yin teach maintaining a data store (Cheung, memory 200) of the network switch for a characteristic associated with a connection request (Cheung, containing a call quality requirements data structure 220), the access level associated with an access threshold (Cheung, maximum delay bound), retrieving (Cheung, extracting the call QoS requirement data for each call 7:10-13) the access level (Yin, service class on Tables 1 and 2 including traffic parameters) for the determined characteristic from a data store (Cheung, memory 200) and assigning the retrieved level to the incoming connection request (Yin, identifying the traffic parameters and class of service for each request 5:55-57). In addition, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add two access tiers to the method

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of Yin and Cheung as a design choice, because three tiers or four tiers will work in the system as well.

On page 12 of the response, Applicant argues that Yin and Cheung do not teach determining the characteristic of the incoming connection request.

Examiner respectfully disagrees.

Yin teaches identifying the traffic parameters and class of service for each request (step 56 on Fig. 3 and 5:55-57).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is 703-305-4384. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dmitry Levitan
Patent Examiner.
02/24/04.



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